

1 What is claimed is:

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3 1. A process for producing low pour point hydrocarbon products having
4 an initial boiling point above about 150 degrees C from a Fischer-
5 Tropsch plant which comprises:

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- 7 (a) recovering a feedstock comprising C₅ plus syncrude from a
8 Fischer-Tropsch plant;
- 9 (b) dewaxing the C₅ plus syncrude feedstock in a catalytic dewaxing
10 zone by contacting the C₅ plus syncrude feedstock with a
11 dewaxing catalyst under dewaxing conditions, whereby a C₅
12 plus intermediate is produced having a lowered pour point
13 relative to the C₅ plus syncrude feedstock;
- 14 (c) hydrofinishing the C₅ plus intermediate in a hydrofinishing zone
15 under hydrofinishing conditions, whereby a UV stabilized C₅ plus
16 product is produced; and
- 17 (d) separately collecting from the UV stabilized C₅ plus product a
18 low pour point hydrocarbon product having an initial boiling point
19 above about 150 degrees C.

20

21 2. The process of claim 1 wherein a low pour point diesel and a
22 lubricating base oil are separately recovered from the UV stabilized C₅
23 plus product.

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25 3. The process of claim 1 wherein the dewaxing catalyst of step (b)
26 contains at least one active metal having hydrogenation activity.

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28 4. The process of claim 3 wherein the dewaxing catalyst comprises an
29 intermediate pore size SAPO.

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31 5. The process of claim 4 wherein the dewaxing catalyst comprises at
32 least one SAPO selected from the group consisting of SAPO-11,
33 SAPO-31, and SAPO-41.

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- 1 6. The process of claim 5 wherein the dewaxing catalyst comprises
2 SAPO-11.
3
- 4 7. The process of claim 3 wherein the dewaxing catalyst comprises an
5 intermediate pore size zeolite.
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- 7 8. The process of claim 7 wherein the dewaxing catalyst comprises at
8 least one zeolite selected from the group consisting of SSZ-32, ZSM-
9 22, ZSM-23, ZSM-35, and ZSM-48.
10
- 11 9. The process of claim 8 wherein an ultra high VI, low pour point
12 lubricating base oil is collected in step (d).
13
- 14 10. The process of claim 3 wherein at least one of the active metals is
15 selected from the group consisting of platinum and palladium.
16
- 17 11. The process of claim 10 wherein at least one of the active metals is
18 platinum.
19
- 20 12. The process of claim 3 wherein the dewaxing catalyst is a non-zeolitic
21 molecular sieve and the active metal is added by non-aqueous
22 addition.
23
- 24 13. The process of claim 1 wherein the hydrofinishing conditions of step (c)
25 comprise a pressure of between about 200 psig to about 3000 psig.
26
- 27 14. The process of claim 13 wherein the hydrofinishing conditions
28 comprise a pressure of between about 500 psig and about 2000 psig.
29
- 30 15. A process for producing low pour point syncrude products having an
31 initial boiling point above about 120 degrees C from a Fischer-Tropsch
32 plant which comprises:
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- 1
- 2 22. The process of claim 15 wherein the hydrofinishing conditions of step
- 3 (c) comprise a pressure of between about 200 psig to about 3000 psig.
- 4
- 5 23. The process of claim 22 wherein the hydrofinishing conditions
- 6 comprise a pressure of between about 500 psig and about 2000 psig.
- 7
- 8 24. The process of claim 16 wherein the cut-point for the separation of the
- 9 low pour point diesel product from the lubricating base oil product is
- 10 pre-selected to maximize the yield of the low pour point diesel product.
- 11
- 12 25. A process for producing ultra high VI, low pour point lubricating base oil
- 13 product from a Fischer-Tropsch plant which comprises:
- 14
- 15 (a) recovering a feedstock comprising C₅ plus syncrude from a
- 16 Fischer-Tropsch plant;
- 17 (b) dewaxing the C₅ plus syncrude feedstock in a catalytic
- 18 hydrodewaxing zone by contacting the C₅ plus hydrocarbon
- 19 feedstock with hydroisomerization dewaxing catalyst comprising
- 20 an intermediate pore size zeolite and at least one metal having
- 21 hydrogenation activity, said dewaxing being carried out under
- 22 hydrodewaxing conditions selected to produce an C₅ plus
- 23 intermediate having a lowered pour point relative to the C₅ plus
- 24 syncrude feedstock;
- 25 (c) hydrofinishing the C₅ plus intermediate in a hydrofinishing zone
- 26 under hydrofinishing conditions, whereby a UV stabilized C₅ plus
- 27 product is produced; and
- 28 (d) separately collecting from the UV stabilized C₅ plus product an
- 29 ultra high VI, low pour point lubricating base oil product.
- 30
- 31 26. The process of claim 25 wherein the intermediate pore size zeolite is
- 32 also characterized by having one-dimensional pores one-dimensional
- 33 pores.
- 34

- 1 27. The process of claim 25 wherein the intermediate pore size zeolite
2 having one dimensional pores comprises at least one zeolite selected
3 from the group consisting of SSZ-32, ZSM-22, and ZSM-23.
4
- 5 28. The process of claim 25 wherein at least one of the active metal is
6 selected from the group consisting of platinum and palladium.
7
- 8 29. The process of claim 28 wherein at least one of the active metal is
9 platinum.
10
- 11 30. The process of claim 25 wherein the hydrofinishing conditions of step
12 (c) comprise a pressure of between about 200 psig to about 3000 psig.
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- 14 31. The process of claim 30 wherein the hydrofinishing conditions
15 comprise a pressure of between about 500 psig and about 2000 psig.